



# City of Port St. Lucie

## McCarty Ranch Extension Water Storage & Treatment Project

### Summary:

This water storage and treatment project directly contiguous to the C-23 Canal would take approximately 1,871 acres of fallow citrus grove at the City's McCarty Ranch Extension Property and convert it to a shallow water storage and treatment facility, diverting up to 27,240 acre feet (8.884 billion gallons) of nutrient laden water from the C-23 Canal per year and reducing freshwater discharges into the St. Lucie River by up to 21%.

### Background & Justification:

As set forth by the University of Florida Water Institute Report of March 2015 (the "Report"), the flood control and water delivery system that serves Florida's urban and agricultural interests has substantially and adversely impacted natural ecosystems in South Florida, including the St. Lucie and Caloosahatchee Estuaries, Lake Okeechobee and the Everglades. Planning has been underway by federal and state agencies as well as key stakeholders for decades. If we want to fix the many well-chronicled problems, we need to take action, and the Report gives us clear marching orders—We need to build storage and treatment, a lot of it.

In fact, even if all of our well-laid plans, like the Comprehensive Everglades Restoration Plan, were built overnight, we would still need an additional 200,000 acre-feet of water storage within the St. Lucie River Watershed in order to reduce the damaging freshwater discharges which are ruining our St. Lucie River, Indian River Lagoon, and way of life. This is because, on average, 70-80% of the freshwater discharges to the St. Lucie River Estuary (the "Estuary") and 65-80% of the nutrient load originate from the local basin. Even during the Lost Summer of 2013, 63% of the freshwater discharges originated from the local basin. Currently, only one 40,000 acre-foot surface reservoir is under construction. Therefore, while we wait for the greater and more complex fixes to Lake Okeechobee and the Everglades, we can take meaningful action at the local level today.

Within the St. Lucie River Watershed, the C-23 is one of several large contributors of freshwater to the Estuary. Others are Lake Okeechobee, the C-44 Basin, Ten Mile Creek, the C-24 and the land draining into the tidal basin. Reducing any of these sources will help improve the health of the Estuary and Indian River Lagoon. The subject project would pump excess stormwater out of the C-23 Canal at times of high flow, keeping nutrient-laden freshwater discharges out of the Estuary. The water would be filtered of nutrients and sediments as it winds its way through the property and would be stored during the wet season to allow the nutrients to settle and pollutants to be reduced and then released back into the C-23 Canal during the dry season when demand is high. It could also provide the City with an alternate source of water for its drinking supply. As the State evaluates competing solutions to its water management challenges, it is important to consider that the subject project provides advantages over other storage and treatment options, such as dispersed water management on private lands, due to better life cycle costs. Since the City would operate and maintain the storage and treatment area in perpetuity as part of its utility, the State's one-time capital contribution would provide real results that future generations of Floridians can count on.

### Key Points:

**Amount of Request: \$8 million**

**Amount of Storage/Year:** Up to 27,240 acre feet (8.884 billion gallons) or 21% of average annual freshwater discharge from the C-23 to the Estuary.

**Amount of Treatment:** Annual amount of Nitrogen & Phosphorous removal is up to 89,721 lbs and 18,471 lbs, respectively.

**Construction Budget:** \$8 million

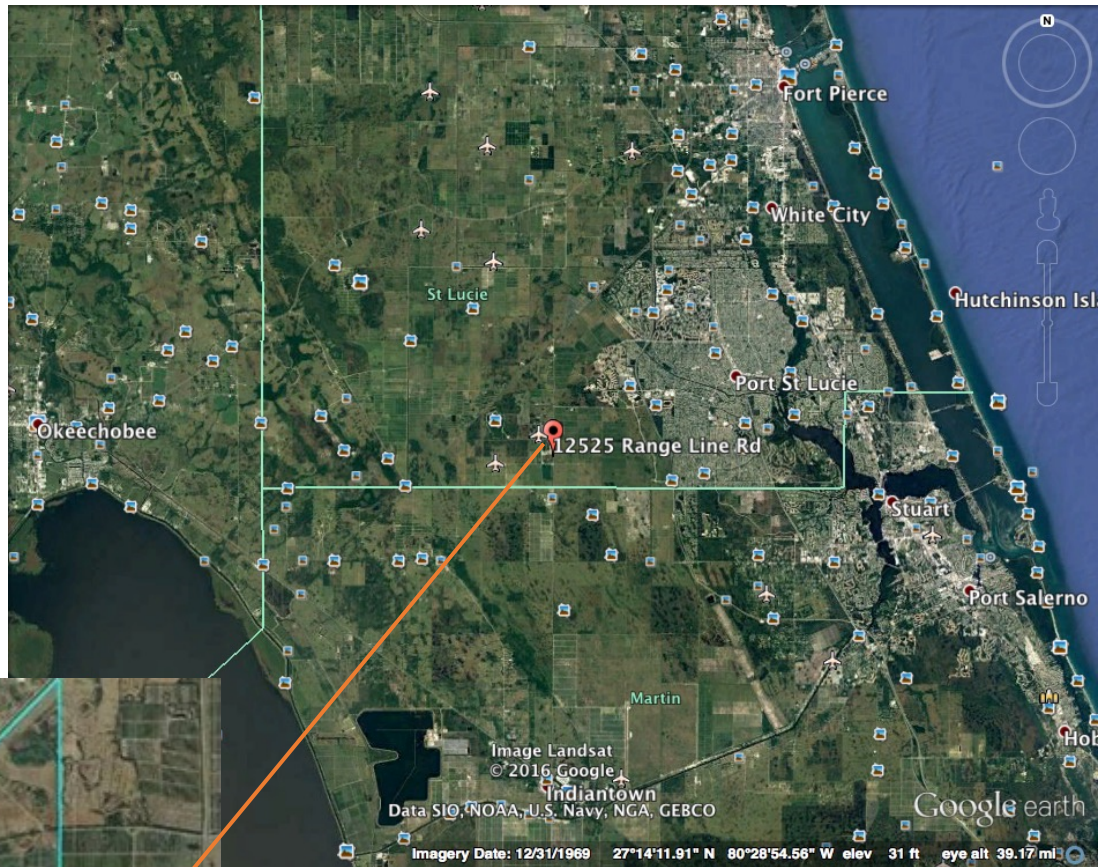
**City match:** \$7.337 million in land plus approx. \$180,000/year in operating costs

**Schedule:** 24 months from award.

**Benefits:** Reduce freshwater discharges by up to 21%; reduce nutrient load and turbidity; ensure water supply; reduce flooding; increase groundwater recharge; and alternate water supply.



Located within the  
Restricted Allocation  
Area of the C-23 Canal  
Basin



McCarty Ranch Preserve/McCarty Ranch Extension  
12525 Range Line Rd.  
Port St. Lucie, FL 34987

Located northeast of Lake Okeechobee and west of  
I-95 and Florida's Turnpike

Both properties total 5,100 acres

For more information, please contact:  
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Dept.

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